

FORT DRUM, NY

Over view of the Energy Conservation Program



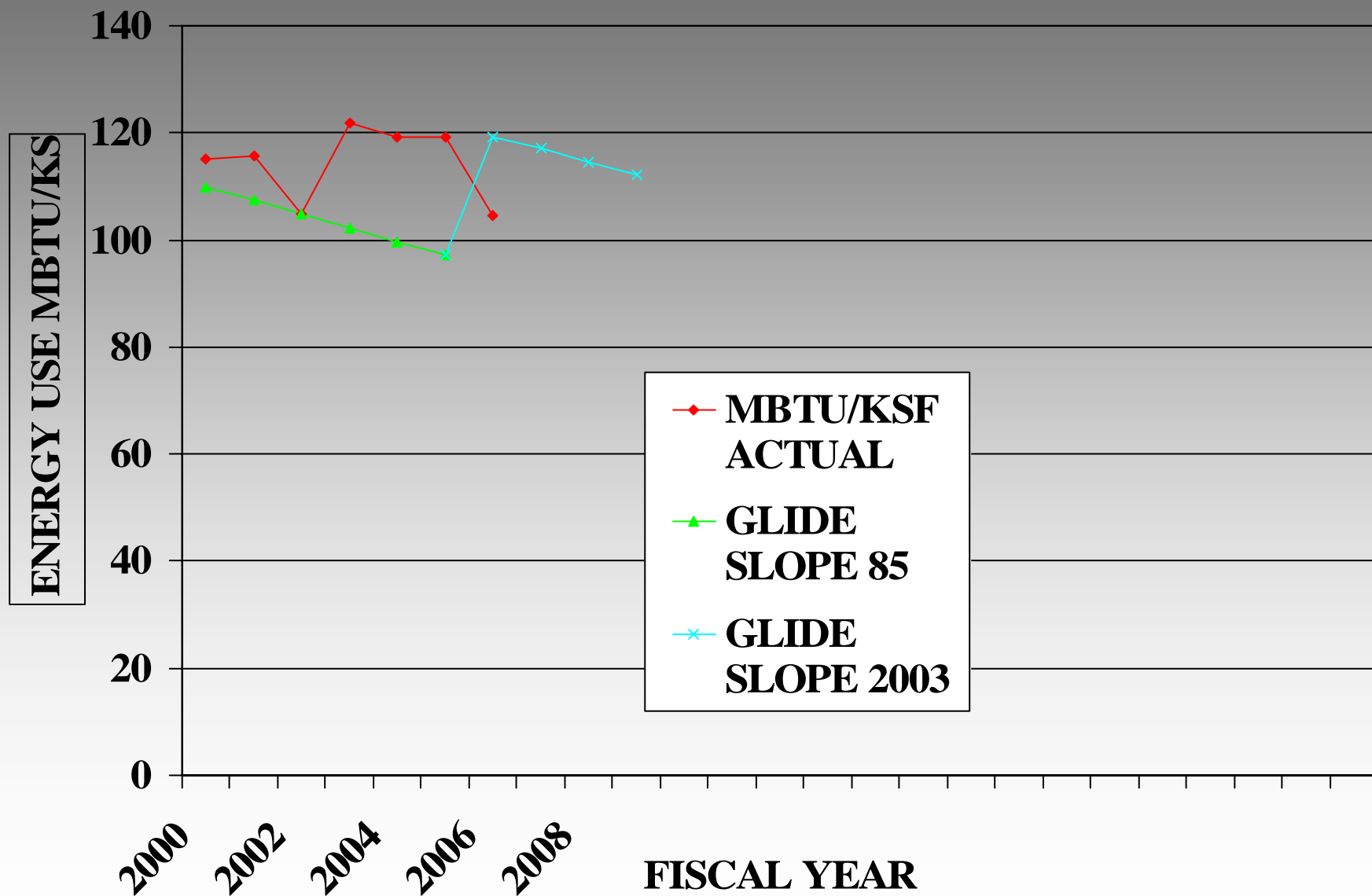
A Practical and Workable Description of an Energy Conservation Program is?

- A. Nothing I can do! That is a Public Works function
- B. Let “em freeze in the Dark!
- C. A nuisance to put up with until the price of gas goes down
- D. Eliminate energy waste while maintaining or improving comfort

A Practical and Workable Description of an Energy Conservation Program is?

- **C. A nuisance to put up with until the price of gas goes down**

FORT DRUM UTILITY CONSUMPTION



ENERGY CONSERVATION PROJECTIONS

FISCAL YR	MBTU	KSF	MBTU/KSF	GOAL
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2000	1380448	12653	111	109.92
2001	1347636	12697	106.14	107.36
2002	1336913	12773	104.67	104.80
2003	1531799	12558	121.98	102.24
2004	1509396	12673	119.1	99.68
2005	1382944	11588	119.34	97.13
2006	1092257	10437	104.49	119.54

FORT DRUM'S FY06 ENERGY COSTS

- On Post and Ranges \$ 12.22 M
- Family Housing (801) \$4. 56 M
- Total FY-06 \$ 16,786,780
 - ◆ Electric \$ 8.04 M
 - ◆ Natural gas \$ 7.5 M
 - ◆ Fuel oil \$ 414 K
 - ◆ LPG \$ 837 K

Past Energy Projects

- Gas Conversion Projects
 - ◆ Pine Plains (South Post) Fuel Oil \$ 7 M
 - ◆ Mnt View (North Post) Heat Plant HTHW \$12 M
- Lighting Projects
 - ◆ Have retrofitted most of the Post
- Insulation Projects
 - ◆ Attics on the South Post
 - ◆ BOQ insulation projects
- Building Remodeling Projects
- ESPC \$13.4 3 contractors

NEW BUILDING DESIGN

- New buildings presently being designed at Fort Drum are using energy efficient technologies.
- Features such as optimal insulation, gas fired condensing boilers, slab heat, T-8 lighting, DDC control systems will help lower the energy use per sq. ft of new buildings.
- Examples include: The Remington Pond Lodge and the Engagement Skills Trainer building.
- MCA include New Battle Sim and Airfield expansion and modulars
- RCI Housing build to NYSERDA Energy Star Program

FY-06/07 PROJECTS



- Energy Conservation investment Program(ECIP).
 - ◆ Solar Walls \$3.0 M at construction
 - ◆ Base wide UMCS \$ 4.4 M at construction
 - ◆ LED taxiway lights Airfield \$ 500 K complete

Solar Wall on Motor Pool



ENERGY AWARENESS

- Building Monitor assignments updated annually
- Training in the Fall
- Command Inspection Program
- Deactivation of empty buildings
- Air conditioning policy / approvals
- Fixing problems to target waste and inefficiency.



Future Efforts/ Issues

- ESPC Round 2.
- EEAP study with PNL, CERL, Huntsville
- Small building Base wide UMCs
- ECIP 09 submissions
- Wood fired Gasifier (ESPC project)
- Finish Solar Wall Demonstration Project
- Support the MCA new expansion Program

Concerns/ Issues

- ESPC Round 2. Ready to go, however lacking a contracting officer at Ft Drum.
- ECIP 09 submissions. What is going to happen with the \$105 M backlog submitted for 08?
- MCA Projects. How do we stop the 15% off the top cut at the DA level? Guess what gets cut out of the scope?
- Retrocommsioning: A way to atone for the sins of the past (i.e. no maintenance). ASCIM should consider a centralized program , preapproved contractors, perhaps cost sharing to get Installations to start continuous commissioning.